

REMARKS/ARGUMENTS

If the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, the Examiner is urged to telephone Edward M. Fink, Esq. at (732) 906-5654 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Specification amendment

The Examiner has rejected to the disclosure stating that Fig. 10 referred to on page 64 of the substitute specification at line 20 should be changed to "Fig. 111". The Applicant has corrected the specification to indicate this change.

Claims 86-136 are currently pending in this application.

Applicant's invention is directed to a method for forming a package comprising at least one mass including natural polymers injection molded in a heated mold such that cross-linking of the natural polymers occurs. Thereafter, a first and second coating is applied thereto in a manner such that at least part of the resultant product is covered by the first and second coating and the remaining part of the product is covered by the first or second coating or not covered by either the first or second coating or any other coating.

The Examiner has rejected claims 86-105, 107-111, 114, 119-123 and 128-136 under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (U.S. Patent No. 5,863,772) in view of Reil (U.S. Patent No. 4,526,314 in further view of Mueller (U.S. Patent No. 4,098,742 and Keeler (U.S. Patent No. 4,172,064).

The Examiner again urges that Anderson et al disclose a method of manufacturing coated products such as a cup comprising forming a base product from a mass containing starch as a natural polymer in a heated mold cavity including those used in injection molding such that cross-linking of the natural polymer occurs. Thereafter, coatings are applied to the surface of the formed base to achieve a uniform film with minimal defects on the surface of the article to attain a uniform film with minimal defects on the article surface.

The Examiner concedes that Anderson et al do not disclose a strengthening coating applied over a waterproof coating to yield a base product with a first coating and a second coating over a portion of said first coating. However, it is urged that Reil discloses the application of reinforcing strips applied over a waterproof coating of polyethylene coated on a paperboard web for cartons to eliminate leakage locations. The conclusion is reached that it would have been obvious to one skilled in the art to apply a strengthening coating over a waterproof coating in Anderson et al for the purpose of eliminating leakage in severely bent locations. This rejection is traversed as follows:

Anderson et al disclose a method for forming products comprising a mass including natural polymers in a heated mold which may typically be employed in injection molding. However, it is crystal clear that Anderson et al do not disclose injection molding of such products nor any equipment to be used in conjunction therewith. As urged previously, one skilled in the art cannot use ordinary injection molding equipment for the process described and claimed in the instant application nor can they use a conventional injection molding mold. Heating means must be incorporated into the mold or, alternatively, the mold must be heated from the outside. This methodology is very clearly not the procedure employed in conventional injection molding. This distinction which clearly is a departure from the Anderson et al disclosure has not been acknowledged by the Examiner nor has it been rebutted in any form. The Examiner continues to take the position that Anderson discloses the use of an injection molding type mold. However, Anderson et al clearly do not disclose, teach or suggest the use of two different coatings in two different positions on the surface of a product which are partially but not entirely overlapping.

In order to obviate this limitation, the examiner relies upon Reil. This patentee discloses cardboard liquid packaging means formed from a blank which is creased to form folding lines. Reil, in fact, discloses the use of polymer strips to be adhered to the blank to assure a watertight coating on the cardboard, thereby obviating damage to a liquid impervious coating provided over the entire surface of the blank. The Examiner's contention that this would make it obvious to one skilled in the art to strengthen

parts of a product as in the instant case or that of Anderson et al is entirely without merit.

Clearly, Reil does not disclose strengthening of a product but merely discloses a means of preventing damage to an first plastic coating at fold lines. Additionally, Reil discloses that the adhesive strips employed should be adhered to the blank by glue, the surface tension being of no consequence whatever. Similarly, the first coating of Reil is made of plastic and again the surface tension does not play any role therein. Still further, Reil specifically discloses (see column 2, lines 12-19) that the strip employed should be welded such that contact surfaces of the reinforcing strip with the coated cardboard terminates from all sides at a spacing in front on the bending lines. In other words, the bending line itself should not be in direct contact with the strip. More specifically, it is stated by the patentee in column 2 of the reference that the application of a strip top the whole surface area around the folding line would be disadvantageous since that would lead to undesired stress and result in damage to the primary coating and/or cardboard. Accordingly, Reil very clearly teaches away from the use of a second coating rather than a strip since it would be impossible to provide a second coating which would adhere to the first coating at two different positions spaced apart, the second coating extending between the two positions but free from the first coating below. With a second coating as described in the instant invention, either a surface part of the first coating is coated entirely or there is no second coating. This means that a second coating applied in accordance with the instant invention cannot have the same function as the

strip described by Reil. Replacing a strip according to Reil by a second coating as described herein would lead to the disadvantages noted by Reil and serves as the basis for the patentee not proposing to adhere the entire strip to the first coating.

In light of the foregoing, it is evident that the statement of the Examiner that a person skilled in the art familiar with the Anderson et al disclosure (which deals with a different method of forming a base product) faced with the desire to modify the characteristics of the product would be tempted to use the Reil method is totally without foundation. This proposed modification would lead to a product totally different than that described and claimed herein. Accordingly, it is urged that the rejection based upon these references be withdrawn.

It should also be noted that Anderson et al merely discloses the use of one coating which may be varied based upon the desired characteristics. However, it is applied on at least one entire surface of the product. There is no disclosure in the Anderson et al reference of the use of two different coatings. Additionally, Reil discloses the use of one coating over the entire surface of the product augmented by plastic strips adhered to the product in specific locations by a technique not attainable by the use of a coating. Accordingly, this constitutes a further basis for rejection of the thesis advanced by the Examiner.

With regard to the issue of surface tension, no indications are given in the references regarding the surface tension or requirements for any range thereof. Reil

does not disclose a second coating at all but merely the use of glue for which the surface tension is of no consequence.

The Examiner notes that with regard to claims 94-97 it would not be inventive to discover the optimum or workable ranges (of surface tension) of result effective variables by routine experimentation. This contention is without merit and irrelevant because no teaching or disclosure is set forth in Anderson et al of a second coating. Accordingly, one skilled in the art would have no reason to entertain experimentation with regard thereto.

The Examiner notes that with regard to claim 111 it would be obvious to one of ordinary skill in the art to have covered parts of the base product of Anderson et al with only one coating or to keep the product clear of a coating while other parts would have two coatings with the expectation of providing the desired surface characteristics of the coated product dependent upon final use. As noted above, Anderson et al only discloses covering the inside and/or outside of a product entirely with only one coating. Accordingly the patentees disclose three feasible embodiments, (a) the entire outside coated with one coating only with the inside free of a coating, (b) the entire inside of the product coated with one coating only with the outside free of a coating, and (c) both the inside and outside completely covered by only one coating. It is evident that this disclosure neither anticipates nor teaches what Applicant is claiming, thereby negating the propriety of the rejection. Accordingly, it is urged that this rejection be withdrawn.

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Claims 128-132 stand rejected as being unpatentable over Anderson et al. The Examiner contends that the patentees disclose the use of coatings for provision of a more finished surface and to provide additional strength or to prevent aggregate and fiber "fly away". The conclusion is drawn that it would have been obvious to one skilled in the art to have coated the cup of Anderson et al in any manner dependent upon its final use including moisture or vapor permeable outside coatings since the patentees disclose various coatings in different combinations may be used for covering parts of a molded product dependent upon its end use. This rejection is traversed as follows:

Anderson et al does indeed disclose the use of various coatings. However, all of the coatings alluded to by the patentees are applied as a single coating to at least one surface of a product. No indication is given nor is there any logical basis for coating of the Anderson et al cup in accordance with the instant invention, namely the coating of the entire inner surface and only a part of the outer surface. Furthermore, none of the secondary references either disclose, teach or suggest doing what Applicant is claiming. Accordingly, it is urged that this rejection be withdrawn.

Claims 112-113 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al in view of Reil, Mueller and Keeler in further view of Hargadon (U.S. Patent No. 3,601,862.

The Examiner urges that Anderson et al further disclose that different products can be made using different masses depending on the intended use of the final product. The argument advanced is that the secondary references teach that the base product is made from at least two different masses having different surface tensions. Hargadon is relied upon for disclosure of a product having integrally joined parts of differing characteristics which can be injection molded using different masses.

The conclusion is drawn that it would have been obvious to one skilled in the art to have employed different masses for making different parts in the injection molding procedure of Anderson et al with the expectation of producing a molded product with integrally joined parts having different characteristics dependent upon the intended use as taught by Hargadon. This rejection is traversed as follows:

The Hargadon reference is directed to a hanger clip intended for the support of decorations and the like. The structure of Hargadon is made of plastic materials entirely. The Examiner has urged that Anderson et al discloses that different masses can be used for obtaining different products. While this thesis may be true, one must recognize that the patentees do not disclose the use of different masses in the same mold at the same time for the purpose of forming the same product having different material properties in different parts of the product. Hargadon discloses the preparation of a product having different parts made of different materials. Although the patentee indicates that the finger pairs are made of an



inherently brittle synthetic plastic and are integrally joined to the strip body as suggested by Figure 4, no disclosure is provided for forming the entire product in one single mold in a single step. As indicated and taught by Figure 4 of Hargadon, both parts are prepared separately and then joined to form the integral product. The product cannot be made differently because the specific form of the strip as shown in Figure 3 could not be obtained. Therefore, the Hargadon reference is inapplicable to claims 112 and 113 and the rejection should be withdrawn.

Claim 118 stands rejected under 35 U.S.C. 103 (a) as being unpatentable over Anderson et al in view of Reil, Mueller and Keeler and in further view of Petterson (U.S. Patent No. 3,896,602). The Examiner concedes that the multi reference combination (Anderson et al, Reil, Mueller and Keeler) fails to teach that a molded product having a receiving cavity is coated by filling the cavity with a fluid coating and subsequently pouring out the coating. Petterson is alleged to disclose that a receiving cavity in a product can be coated by filling the cavity with a fluid coating and subsequently pouring out the coating.

The conclusion is drawn that it would have been obvious to one skilled in the art at the time the invention was made to have coated a product having a receiving cavity as disclosed by Anderson et al in view of Reil, Mueller and Keeler by filling the cavity with a fluid coating and subsequently pouring out the coating with the expectation of providing the desired coating taught by Petterson. This rejection is traversed as follows:

Petterson does indeed claim in claim 5 pouring a liquid material into a container to form a coating and then pouring out the excess liquid material. However, this concept is not disclosed in the Petterson specification and claim 5 is dependent upon claim 1 which claims specific steps which are neither disclosed or required by the instant invention. Accordingly, the concept claimed in claim 5 of Petterson can not be considered apart from the specific steps required by the claim upon which claim 5 is dependent. Accordingly, it would not be logical to urge that it would be obvious to one skilled in the art that the one step of Petterson as claimed in claim 5 could be used independent of the steps set forth in claim 1 of the reference. Accordingly, it is urged that this rejection be withdrawn.

Claims 124-127 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Anderson et al in view of Reil, Mueller, Keeler and Rusincovitch, Jr. (U.S. Patent No. 5,304,411). The Examiner concedes that the combination of Anderson et al, Reil, Mueller and Keeler fail to disclose that as surface reducing agents, oily products such as silicone oil in an amount ranging from 0.5 to 15 volume% may be added to coating compositions to provide a reduction of surface tension of the coating layer after drying.

Rusincovitch, Jr. is relied upon for a disclosure of the use of surface reducing agents such as silicone oil. The conclusion is drawn that it would have been obvious to one skilled in the art to have added the silicone oil as a surface reducing agent to the coating of Anderson et al as

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modified by Reil, Mueller and Keeler with the expectations of providing the desired surface tension as disclosed by Rusincovitch, Jr. This rejection is traversed as follows:

Rusincovitch, Jr. discloses that the use of silicone oil of less than 2.5 weight per cent or more than 5% would lead to disadvantageous effects. Moreover, the patentee only discusses the use of inks. Therefore, the broad range employed in accordance with the present invention for use in a baked product would be unanticipated and surprising in view of this reference which is to the contrary. Accordingly, the range of 0.5-15 volume per cent (not weight percent) is novel and inventive and it is urged that the rejection be withdrawn. The Examiner should also bear in mind that Applicant's invention was not directed to the discovery of an optimum or workable range but is directed to the recognition that silicone can be used as a surface tension reducing medium with products baked on a mass containing natural polymers which have differing surface properties than paper which is not baked and therefore is not cross-linked.

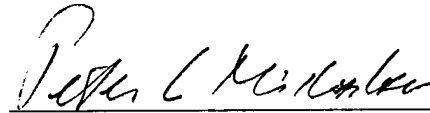
In light of the foregoing, it is urged that the Examiner recognize that the rejections created are based upon a combination of references which are selected from differing materials. The combination of references proposed clearly does not lead to the teachings described in the instant invention.

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Reconsideration and allowance of claims 86-136 are  
most earnestly solicited.

Respectfully submitted,

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